Amendments to the Specification:

The Examiner objected to the specification because of several informalities. The Applicant submits an amended specification which corrects these informalities. The amended specification is submitted showing both the clean version and a marked up version indicating the amendments, pursuant to 37 CFR 1.125.

~~SPECIFICATION *(Written description and process of making invention and required components as per Utility Patent Specifications/Internet)*~~

ABSTRACT

~~The Stow Away~~ A c~~C~~ollapsible fish cleaner ~~is~~ in the form of a V-shaped trough or holding tray with integral ends that performs similarly to welded or molded fish cleaners to securely hold fish for cleaning on the outside of ~~the~~ a boat. ~~The Stow Away is substantially different in that it is made up 7~~Seven integrally incorporated hinge assemblies ~~which~~ allow the ~~devise~~ device to be folded completely flat without disassembly. ~~The folded flat dimension is approximately 1.5" inches including the 1 inch gunnel support flange.~~ The ~~devise~~ device is made ready by unfolding from the flat storage position to the V-shape ~~with no assembly~~. ~~The primary components are made of aluminum with stainless steel hinge pins making it strong and durable.~~ The hinges are an integral part of each of six ~~(6)~~ parts interfacing with each other on seven ~~(7) axis~~ axes in this design. ~~The devise~~In the use of the device, a support flange rests on the side ~~gunnel~~gunwale of ~~the~~ a boat ~~on the support flange~~, secured to the boat by a ~~web strap and a lever type harness clip (or other~~ quick release connector~~) to the boat~~.

STOW AWAY COLLAPSIBLE FISH CLEANER

BACKGROUND OF THE INVENTION

~~The Stow-Away Collapsible Fish Cleaner (devise is a fish cleaning trough) was designed and created for boat fishermen to fill a~~A void exists in the market for a convenient and storable fish cleaning trough ~~cleaner~~ which works as ~~good~~ well as others on the market, but when folded flat for storage takes up a minimal amount of room.

SUMMARY OF THE INVENTION

~~It is As~~ The collapsible fish cleaner is a ~~7~~ seven piece aluminum unit with six sides, ~~it is~~ permanently affixed together by integral hinges and stainless hinge pins, and a support flange.~~,~~ The unit opens into a ~~"V" shaped~~ V-shaped trough with closed ends that allow fish to be placed in the trough without risk of sliding out either end. In one embodiment, a~~A~~ support flange and two strap and hook assemblies affix the unit to the ~~side gunnel~~gunwale of ~~the~~ a boat. The secured unit allows cleaning a fish over the side of the boat and lets blood and small viscera drain through the hinge assemblies, outside of the boat, by way of the space ~~in the notch design which accommodates the turned hinge tab of the opposite side~~at each bottom edge of the unit. The space is adequate for drainage,~~.~~ yet is small enough to prevent loss of normal knives and cleaning accessories through the drain notches.

~~The primary design difference, not previously available, is:~~

- ~~—~~The cleaner presents several advantages over others in the market. The unit folds flat for convenient storage, unlike other units which take up the bulk-space of the open trough dimensions.

- ~~—~~The unit has integral hinge assemblies which are part of the pieces which form the unit based upon the seven ~~(7)~~ interlocking hinge interfaces, as ~~(although this design is~~ an alternative to commercially produced hinges welded into the same positions. ~~)~~

~~—~~and

- ~~—~~The drainage slots are configured so they do not allow loss of cleaning utensils such as standard fillet knives, gut spoons, and fish scaling tools.~~, etc.~~

~~•~~ The unit provides a semi-raised ~~(5.5 inches above support flange, positioned on the existing gunnel of the boat)~~ position which aids in ease of cleaning the fish, and ~~or~~ allows easier unhooking and release of those fish not intended to be kept.

~~• This invention design~~ The unit was developed to meet the desire of guides and sport fishermen for maximizing their useable boat space while still maintaining the convenience of being able to clean their catch in a quality apparatus designed to hold and clean fish in the Pacific Northwest.

The ~~Stow Away Collapsible Fish Cleaner~~unit will fill similar needs and desires in areas outside of where it was developed and will apply to much broader scope than for what it was initially developed. Fishermen that keep and clean fish and that are concerned for boat space~~,~~ in many ~~demo~~geographic areas will find use for this device.

~~BRIEF SUMMARY OF THE INVENTION~~

The ~~Stow-Away C~~collapsible fish cleaner is a V-shaped trough or holding tray with integral ends that performs similarly to welded or molded fish cleaners to securely hold fish for cleaning on the outside of the boat. Seven integrally incorporated hinge assemblies allow the device to be folded completely flat without disassembly. ~~The Stow-A way is substantially different in that it is made up 7 integrally incorporated hinge assemblies which allow the devise to be folded completely flat without disassembly.~~ The hinges are an integral part of each of six parts interfacing with each other on seven axe~~i~~s in this design. The device is made ready by unfolding from the flat storage position to the V-shape, with no assembly. In the preferred embodiment, t~~T~~he folded flat dimension is approximately 1.5~~"~~ inches including the 1 inch ~~gunnel~~ support flange. ~~The devise is made ready by unfolding from the flat storage position to the V-shape with no assembly.~~ The primary components are made of aluminum with stainless steel hinge pins making it strong and durable. ~~The hinges are an integral part of each of six (6) parts interfacing with each other on seven (7) axis in this design.~~ The devis~~c~~e rests on the side

~~gunnel~~gunwale of ~~the~~ a boat on the support flange, secured to the boat by web strap, ~~and~~ a lever type harness clip, ~~(~~or other quick release connector.~~) to the boat.~~

BRIEF DESCRIPTION OF DRAWINGS

~~(The term Fig. and the corresponding first number is used identify the reference, i.e. Fig 1 is page 1/9 (BWC2-001)~~

Fig. ~~0~~1~~: Page 0/9 (BWC2-000) is the suggested cover drawing.~~ is a perspective view of an assembled collapsible fish cleaner.

Fig. 2~~1: Page 1/9 (BWC2-001)~~ is the flat pattern layout of the front piece, back piece, and support flange for the fish cleaner shown in Fig. 1. ~~parts, 1, 2 and 7 identifying the parts by number as noted in the LIST OF REFERENCE MARKS USED ON DRAWINGS section.~~

Figs. ~~2~~3A and 3B ~~: Page 2/9 (BWC2-002) is~~ are the flat pattern layouts of two ~~the front, back and support flange~~angular end pieces ~~parts 3 and 4~~of the fish cleaner. ~~1, 2 and 7 identifying the related dimensions to correctly manufacture the identified parts.~~

Figs. ~~3~~4A and 4B ~~: Page 3/9 (BWC2-003) is~~ are the flat pattern layouts for ~~first and second back~~ two other angular end pieces~~parts 5 and 6~~of the fish cleaner shown in Fig. 1. ~~3 and 6 and parts 4 and 5, identifying the parts and components by number as noted in the LIST OF REFERENCE MARKS USED ON DRAWINGS section.~~

~~Fig 4: Page 4/9 (BWC2-004) is the flat pattern layout of the end parts 3 and 6 and parts 4 and 5 identifying the related dimensions to correctly manufacture the identified parts.~~

~~Fig 5: Page 5/9 (BWC2-005) is a 3-dimensional representation of the primary assembled 7 piece unit identifying the parts in relation to the flat pattern representation of Fig. 1 and Fig. 3.~~

Fig. 5~~6: Page 6/9 (BWC2-006) is a 3-dimensional representation of the primary assembled '7 piece unit identifying the exploded views required to show additional detail in Figs. 7 and 8.~~

~~Fig 7: Page 7/9 (BWC2-007)~~ is an exploded top view of the device, showing the hinges except the bottom horizontal hinge.

~~representation between the primary parts, 1,2,3,4,5 and 6. The interface between these parts are 3/16 stainless steel hinge pins (six each in Fig. 7).~~

Fig 6~~87:~~ ~~Page 8/9 (BWC2-008)~~ is an exploded end ~~and assembled~~ view of the bottom ~~(~~horizontal~~)~~ hinge assembly ~~, including the 3/16" stainless steel hinge pin~~ joining the front piece and back piece. ~~Parts 1 and 2.~~

Fig 7~~9:~~ ~~Page 9/9 (BWC2-009)~~ is ~~the dimensional and angle estimations of the typical hinge knuckle after bending of the hinge tab~~an end view of the bottom horizontal hinge assembly joining the front piece and back piece.

~~LIST OF REFERENCE MARKS USED ON DRAWINGS~~

~~(Numbers unless otherwise noted)~~DETAILED DESCRIPTION OF THE INVENTION

~~With regard to reference marks used, the following are used throughout the drawings. These drawings are produced for use with the provisional patent application as a reference to assist in understanding the invention and (either modified or unmodified) may become a part of the permanent record as called out in 35U.S.C.113. Due to 35U.S.C.113 requirements for drawings on a Utility Patent application, drawings meeting all requirements accompany this application.~~

The present invention relates to a device for holding a fish for cleaning. The drawings submitted show the preferred embodiment.

~~1. A~~

The front piece 1 ~~making up one wall of the collapsible fish cleaning trough with~~ has integral hinge tabs 1a and hinge notches 1b on the bottom edge 1c and side edges 1d.~~both ends.~~ The top edge 1e has a ~~3/4"~~ hem 1f, which hem is ~~,~~ turned inwards towards the inside center of the cleaner. The integral hinge tabs 1a intermesh with a ~~2. The~~ back piece 2. Back piece 2 has ~~making up one wall of the collapsible fish cleaning trough with~~ integral hinge tabs 2a and hinge notches 2b on ~~the~~ its bottom edge 2c and side edges 2d.~~both ends.~~ Said intermeshing occurs at the integral hinge tabs 1a along bottom edge 1c and integral hinge tabs 2a along bottom

edge 2c. The top edge 2e has a ~~3/4"~~ hem 2f, which is~~,~~ turned inwards towards the inside center of the cleaner.

~~3. The~~ A first back angular end piece 3 has ~~which meshes~~ hinge tabs 3a and hinge notches 3b along an interior edge 3c and exterior edge 3d. Said back angular edge piece meshes with back piece 2 at exterior edge 3d and one of the side edges 2d.~~with part 2.~~ A~~The~~ top edge 3e of the first back angular end piece 3 matches the height of the hem 2f at ~~an the intersection point on part 2 and is at the angle specified in drawing Fig. 4.~~2e but leaves a space above bottom edge 2c through which fish viscera may be cleared.

~~3.1 (3.)~~ The first back angular end piece 3 has a fish holding notch 3f ~~radius~~ cut out of the corner between top edge 3e and interior edge 3c. Notch 3f, when joined ~~with~~ in assembly, may be used to help secure the head or tail of a fish being cleaned. ~~it on the opposite end of the top which corresponds to the center hinge location. The radius will form a 180 degree radius cut out when joined by the integral hinge tabs of the adjoining piece.~~

~~4. The~~ A first front angular end piece 4 ~~which meshes~~ has hinge tabs 4a and hinge notches 4b along interior edge 4c and exterior edge 4d. Said first front angular piece meshes with front piece 1 at exterior edge 4d and one of the side edges 1d. Further the first front angular edge piece 4 meshes with said first back angular edge piece 3 along interior edge 3c and interior edge 4c.~~with part 3 in the center and with part 1 on the outside.~~ A ~~The~~ top edge 4e matches the height of the hem 1f at 1e but a bottom end leaves a space above bottom edge 1c through which fish viscera may be cleared.

~~at an the intersection point on part 1.~~

~~4.1 (4.)~~ The first front angular end piece 4 has a fish holding notch 4f ~~radius~~ cut out of the corner between top edge 4e and interior edge 4c.~~it on the opposite end of the top which corresponds to the center~~

~~hinge location. The radius will form a 180 degree radius cut out when joined by the integral hinge tabs of part 3.~~ Notch 4f,~~-~~ when joined ~~with~~ in assembly, may be used to help secure the head or tail of a fish being cleaned.

A second front angular end piece 5 is identical to the first front angular end piece 4 and has ~~. . . 5. Identical to part 4, for the opposite end of part 1.~~ hinge tabs 5a and hinge notches 5b along interior edge 5c and exterior edge 5d. Said second front angular piece 5 meshes with front piece 1 at exterior edge 5d and one of the side edges 1d. Further said second front angular edge piece 5 meshes with a second back angular edge piece 6 along interior edge 6c-and interior edge 5c. A top edge 5e matches the height of the hem 1f at 1e but leaves a space above bottom edge 1c through which fish viscera may be cleared.

The front angular end piece 5 has a fish holding notch 5f cut out of the corner between top edge 5e and interior edge 5c. Notch 5f, when joined ~~with~~ in assembly, may be used to help secure the head or tail of a fish being cleaned.

~~5.1 Identical to 4.1 , for the opposite end of part 1.~~

~~6.~~ A second back angular end piece 6 is i~~I~~dentical to said first back angular end piece 3 and has hinge tabs 6a and hinge notches 6b along an interior edge 6c and exterior edge 6d. Said second back angular edge piece 6 meshes with back piece 2 at exterior edge 6d and one of the side edges 2d. A top edge 6e of the second angular end piece 6 matches the height of the hem 2f at 2e but a bottom end leaves a space above bottom edge 2c through which fish viscera may be cleared. The second back angular end piece 6 has a fish holding notch 6f cut out of the corner between top edge 6e and interior edge 6c. Notch 6f, when joined ~~with~~ in assembly, may be used to help secure the head or tail of a fish being cleaned.

~~part 3, for the opposite end of part 2.~~

~~6.1 Identical to part 3.1 for the opposite end of part 2.~~

~~7. The~~ A support flange 7 is attached to an ~~the~~ exterior surface 2h ~~(side opposite top hem)~~ of said back piece ~~part~~ 2.

~~7.1 The position of the support flange on part 2.~~

~~8. The~~ A bottom ~~(~~horizontal~~)~~ hinge pin 8 joins~~ing~~ the front piece 1 to the back piece 2 along bottom edges 1c and 2c.~~parts 1 and 2.~~

~~9. The~~ A first center vertical hinge pin 9 joins~~ing~~ first back angular end piece 3 to first front angular end piece 4 at interior edges 3c and 4d. A second center vertical hinge pin

9a joins second back angular end piece 6 to second front angular end piece 5 along interior edges 6c and 5c.~~parts 3 to 4 and 5 to 6.~~

~~10. A The~~first set of~~-~~ corner vertical hinge pins 10 join~~ing~~ back piece 2 to back angular end pieces 3 and 5 along exterior edges 3d and 5d respectively. ~~part 2 to parts 3 and 5. The comer~~A second set of corner vertical hinge pins 10a join first and second front angular end pieces 4 and 6 -to front piece 1 along exterior edges 4d and 6d respectively.

~~joining part 1 to parts 4 and 6.~~

~~11. Bottom (horizontal) tab and notch hinge interface portion of part 1 and part 2.~~

~~11.1 Bottom tabs after forming to 270 degree radius around 3/16" hinge pin.~~

~~11.2 Bottom notch between formed tabs.~~ The bottom edges 1c and 2c each have tabs 1a and 2a which are bent to accommodate a bottom hinge pin 8.

~~12. Tab and notch hinge interface from part 2 to part 5.~~

~~12.1 Tabs of part 2 and part 5 hinge interface after forming to 270 degree radius around 3/16" hinge pin.~~

~~12.2 Notch between formed tabs.~~

~~13. Tab and notch hinge interface from part 2 to part 3.~~

~~13.1 Tabs of part 2 and part 3 hinge interface after forming to 270 degree radius around 3/16" hinge pin.~~

~~13.2 Notch between formed tabs.~~

~~14. Tab and notch hinge interface from part 1 to part 6.~~

~~hinge pin.~~

~~14.2 Notch between formed tabs~~

~~15. Tab and notch hinge interface from part 1 to part 4.~~

~~15.1 Tabs of part 1 and part 4 hinge interface after forming to 270 degree radius around 3/16" hinge pin.~~

~~15.2 Notch between formed tabs~~

~~16. Top edge of flat cutout part 1 which will form the inside edge of the 3/4 inch inside hem.~~

~~17. The hem line which will form the top edge of part 1 when the 3/4 inch hem is made.~~

~~18. Top hem 32 x"3/4" on parts 1 & 2.~~

~~19.~~ Exterior surface 2h has affixed to it a means to attach the apparatus to the gunwale of a boat. In the preferred embodiment, said means is a ~~Holes for~~ footman strap loop attachment 11 affixed to exterior surface 2h by ~~.~~

~~19.1~~ 1/4" inch ~~diameter, ~ long~~ stainless steel ~~phillips~~Phillips head screws and ~~. 19.2~~ 1/4" inch ~~diameter~~ nylon insert lock nuts (not shown).

~~20. Footman loop.~~

~~21. Holes in part 2 and part 7 for affixing part 7 to part 2.~~

~~21.1 1/4" diameter x ~ long aluminum rivet to attaching Part 7 to part 2. 22. Tab and notch hinge interface from part 3 to part 4 and part 6 to part 5. 22.1 Tabs of hinge interface from parts 3 to part 4 and part 6 to part 5. 22.2 Notches between formed tabs.~~

~~23. Tab and notch hinge interface from part 4 to part 3 and part 5 to part 6.~~

~~23.1 Tabs of hinge interface from part 4 to part 3 and part 5 to part 6.~~

~~23.2 Notches between formed tabs.~~

~~DETAILED DESCRIPTION OF THE INVENTION~~

~~(Description of the preferred Embodiments How to make and use it.)~~

~~[0001]~~ The means for manufacturing the pieces of said device and forming the hinges are well known. ~~A flat pattern,~~

Figs. ~~1 & ,~~ ~~2, and~~ 3A and 3B, and 4A and 4B show the form of the ~~(BWC2-001 & BWC2-002) is laid out on according to Fig. 1 and Fig. 2 for parts 1, 2 and 7 including all~~ tab and notch interfaces, holes and hem, a front piece, a back piece, and angular end pieces. ~~items: 1, 2, 7,7.1, 11, 12, 13,14,15,16,17,18,19 and 21.~~ In the preferred embodiment, ~~The material is intended to be.~~ .080" inch gauge aluminum is used for the front piece, back piece, and support flange, ~~for this application,~~ but the maker ~~invention idea~~ may utilize other materials to produce a similar device ~~devise~~ with equivalent alternative materials. ~~material(s).~~ Both the front piece 1 and back piece 2 have a ~~The pattern made along the~~ bottom hinge interface which interface is ~~(Fig 1, 11) of parts 1 and 2 of both pieces in~~ an alternating tab and notch pattern cut into the side. In the preferred embodiment, t~~T~~he combined measurements of one notch and one tab is

two inches, with 16 alternating tabs and notches. In the alternative, the ~~. The unit~~ pattern ~~is set up so that this 16 tab and 16 notch long pattern~~ can be either lengthened or shortened in 2 inch increments ~~(pitch)~~ without making any significant design changes in the pattern of these two pieces, provided that the corresponding ~~. End play is 1/8" based upon the tab width of 15/16" and notch width of 1 1/16". Addition or subtraction in length in this manor requires the following two minor changes in addition to the tab and notch change. The length of~~ the hinge pin ~~(Fig 5, 8)~~and ~~the length of the~~ top hem ~~(Fig. 1, 18 and Fig. 2, 18)~~ are lengthened or shortened ~~amended~~ to match the change in the pattern.~~2 inch increments. All other parts herein discussed in this section (0001 through 0027 end) remain unchanged.~~

~~[0002] A flat pattern, Fig 3 and Fig 4 (BWC2 003 & BWC2 004) is laid out according to Fig. 3 and Fig. 4 for parts 3,6,4 and 5 and components: 3.1,4.1,5.1,6.1, 12, 12.1,12.2, 13,13.113.2, 14, 14.1,14.2, 15,15.1, 15.2,22,22.1,22.1,23,23.2,23.2.~~

~~[0003] The outside perimeter lines~~ In the preferred embodiment, six planar pieces 1, 2, 3, 4, 5, and 6 are cut ~~from 0001 and 0002 as specified. Means of choice is~~by computer-assisted plasma cutter or laser, or by ~~means of a manually operated bandsaw. A commercial fabricator (Versatech, Portland, Oregon) has been utilized to perform the cutting based on specification provided herein. The methodology is common to similar fabrication shops. A comparable product can be achieved by utilization of~~ a high quality bandsaw ~~to follow~~which follows the specified layout of the pattern for the perimeter layout. ~~.~~ Holes ~~corresponding to 19 and 21~~to secure the support flange and footman strap are either punched ~~@ .28125 to accommodate .25" hardware~~ or drilled ~~.28125~~ to accommodate ~~.25"~~ 1/4 inch diameter hardware in the flat fabrication.

~~[0004]~~ The ~~single piece flat pattern designs (Figs. 1 4) hinghinge~~ tabs 1a, 2a, 3a, 4a, 5a and 6a are ~~intended to be~~ bent by a commercial fabricator in press equipment to a 135 degree "U" shape ~~for all hinge interfaces~~by utilizing a 3/16 (or 1/4" inch) die ~~(Fig 7 and Fig 8)~~. The result is a 3/16" inch "U" shaped hinge radius, ready to be closed with the insertion of the hinge pin and subsequent press application pressure to the leading edge subsequently closing the hinge. ~~The specific orientation of the hinge bends is detailed in Fig 7.~~

~~[0005]~~ Each of the hinge tabs 1a, 2a, 3a, 4a, 5a, and 6a has length which is divided into a first rolled part (not shown) and a second rolled part (not shown). The length of the first rolled part is not critical as long as all hinge tabs are manufactured with lengths identical to ~~eachother~~each other, so that the interfaces cannot be disassembled without hinge pin removal. An ideal closure of the hinge tabs places the leading tab edge in close contact with itself near the start of the hinge-tab radius bend.

The length of the first rolled part of the tab is determined as follows:~~.~~ ~~T~~the hinge diameter dimension is calculated as the sum of twice the thickness of the material plus the diameter of the forming die. In the preferred embodiment, this calculation is (.080 + .080 + .1875 = .3475"). The circumference of a circle having a diameter equal to ~~corresponding to~~ the hinge diameter is calculated. In the preferred embodiment, this circumference equals ~~a full circle measurement of~~ 1.0917". However the leading edge of the tab contacts itself on closure at 294 degrees of bend, requiring only 81.667% (294/360 degrees) of this circumference measurement. ~~(Fig 9.)~~ This results in .8916" of the tab material being bent. The balance of the tab is left unbent and in the original plane of the whole part to which it is a sub-component. The midpoint of this bent measurement (.4458") is the distance from the leading edge to the break point of the 135 degree press bend performed by the ~~commercial~~ fabricator ~~(or independently if not subcontracted out)~~ with a press and 3/16 inch die. ~~The distance to the break point is not critical as long as: A. All parts are done with the break point identical to one another and B.~~ There is enough tab material that when performing the steps below for hinge closure and the closed hinge cannot be disassembled without manual pin removal. An ideal closure of the hinge places the leading tab edge in close contact with itself near the start of the hinge-tab radius bend as shown in Fig. 7. ~~Fig 9, Part 11.1.~~

~~[0006]~~ Alternative technology to achieve a closed hinge is ~~an~~ acceptable ~~alternative to that developed by Big Water Company~~, but does not represent change to ~~the (significant) idea which is the basis~~ of this invention. ~~A commercial hinge die tool which uses a 3 step or 1 step process making your own tooling for this manufacturing function.~~

~~[0007] If outsourced, delivery of the parts processed as detailed above [0001-0004] to the Big Water Company (or other) assembly facility(in the instance of outsourcing) constitutes the continuation of a manufacture process toward completion. Inspection and confirmation of the accuracy of specifications from Figs. 1, 2, 3, 4, 7 and 8 must be made and accepted as within tolerance before continuing. Otherwise the process is a seamless continuation from [0005] to [0008] through this point.~~

~~[0008] Hinge closing is accomplished in a hydraulic press. A hinge closing tool (manufactured by Big Water Company - Richardson Brothers) modeled after commercial hinge tool dies, four ea. of 1 inch wide by 4 inches long x 3/4" thick steel fingers attached to a -- diameter rod with a 1 inch wide spacing. The fingers of the tool are set with the end of the fingers slightly overlapping the tabs to be bent with the rod portion away from the end of the tab. A hydraulic press cylinder is driven downward onto the fingers, at their midpoint. As compression occurs, the fingers rotate downward on the radius of the connecting rod and complete closing the hinge tab from its 135 degree semi closed position to its finished position near or at the 270 degree contact point.~~

~~[0009] Parts~~ Front piece 1 and front piece 2 are combined at 1c and 2c ~~11 (Fig 1) & (ref Fig. 8) 11.2 and 11.3~~ and the hinge is closed from the 135 degree position to 270 degree closed hinge position with the hinge pin 8~~(part 8)~~ inside the radius. ~~(tool and methodology in [0008].~~

~~[0010]~~ First back angular end piece ~~Part~~ 3, ~~Fig 7, 22.1~~ and ~~Part~~ first front angular end piece 4, ~~Fig 7, 23.1~~ are combined with hinge pin ~~Part~~ 9a (Fig. 5), ~~Fig 7 and Fig 9~~ and the hinge is closed from the 135 degree position to the 270 degree closed hinge completion.

~~[0011] Part~~ Second front angular end piece 5 and ~~Part~~ second back angular end piece 6 are combined with hinge pin 9 by the same process ~~[0005)~~ as with part 9a. ~~as in [0005].~~

~~[0012] Part~~ First back angular end piece 3 and ~~Part~~back piece 2 are combined ~~at~~ with one of a pair of hinge pins 10a ~~(Fig. 5 and 7)~~ and the hinge is closed from the 135 degree position to 270 degree closed hinge position with ~~part~~ one hinge pin 10a inside the radius.

[0013] Part Second front angular end piece 5 and partback piece 2 are combined at with one of a pair of hinge pins 10 (Fig. 5 and 7) and the hinge is closed from the 135 degree position to 270 degree closed hinge position with part one hinge pin 10 inside the radius.

[0014] Hinge pin 9a at intersection of parts first back angular end piece 3 and first front angular end piece 4 and pin 9a at the intersection of partssecond front angular end piece 5 and second back angular end piece 6 is are pulled (removed).

[0015]PartFirst front angular end piece 4 and front piece Part 1 are combined at with one of a pair of hinge pins 10a (Fig. 5 and 7) and the hinge is closed from the 135 degree position to 270 degree closed hinge position with part one hinge pin 10a inside the radius.

[0016]Part Second back angular end piece 6 and Part front piece 1 are combined at with one of a pair of hinge pins 10 (Fig. 5 and 7) and the hinge is closed from the 135 degree position to 270 degree closed hinge position with part one hinge pin 10 inside the radius.

[0017] Rivets (not shown) (21.1) are inserted from the inside through hole (21) of back part piece 2 and then through hole 21 of part support flange 7. Rivets are compressed, pulling together parts support flange 7 and back piece 2 forming the attachment for support flange. A hydraulic press and W' capping tool is used to form a conical compressed rivet head on

the exterior of device devise and flange. The support flange, at a 120 degree bend angle is flush on part back piece 2 at location 7.1 and extends away from part back piece 2 perpendicular to the centerline (9) of the cleaner (also the gravitational orientation) in its' open and ready to use application.

[0018] The hinge interfaces of parts 3 & 4fFirst back and front angular end pieces 3 and 4 and parts 5 & 6second front and back angular end pieces 5 and 6 are realigned and interfaced lining up

all the hinge tabs. Hhinge pins 9 and 9a are is reinstalled. at intersection of parts J. and 4 and parts 5 and 6. (This is best accomplished in a collapsed position).

[0019] Two Footman 100ps(20) loops 11 are installed in part back piece 2, holes 19 with 4 ea 1/4" x ½" stainless steel pPhillips head screws and 4 ea 1/4" nylon insert lock nuts.

~~[0020] Variations on the attachment of the devise do not offer any change to the embodiments of the overall invention herein discussed and taught above.~~ Two nylon straps (not shown) secure the ~~Stow Away~~ fish cleaner to attachment points ~~(supplied hardware or other suggested methods)~~ in or on the boat. ~~Each strap is attached to a footman loop on the cleaner by a loop of nylon strapping formed by two strap slides (or other adjusting fastener appropriate to the strap utilized). On the opposite end of the strap a harness clip (or suitable positive fastening substitution) with a strap loop appropriate the strap utilized. The strap is passed through 2 each strap slides (also appropriate), through the strap loop of the harness clip and back through each slide, placing the harness clip in a secured loop of strap. This completes the attachment hardware for the invention.~~

The support flange 7 is riveted to the exterior 2h and extends away from the trough. In the preferred embodiment, the unit extends 5.5 inches above the support flange to provide a user a semi-raised position to aid in cleaning fish or allow easier unhooking and release of fish not intended to be kept.

~~[0021]~~ The resulting completed device ~~mechanism from the previous steps of manufacture offers a difference not previously available by means of a secured fish cleaning trough with ends, creating a fully enclosed "box" in the "open Position" that~~ can be effectively used in place of other fish cleaning boxes and/or trays yet is of integral one piece assembled design, that can be folded flat for stowage~~.~~. The folded cleaner is essentially flat when collapsed for stowage and can fit in spaces where other fish cleaning trays troughs or devices ~~devises~~ might not be stored.

~~MEANS OF USE~~

~~[0022] After making or obtaining the Big Water Company Stow Away Fish cleaner, install the two retainment/support loops (½ loop, 2" long, #10 screw) or alternative fastening attachments (eye bolts or other means) to the gunnel or inside structure of the boat. The selected attachment location should have adequate structural integrity to support the stress created by the Stow Away and the load placed in the cleaner. Various modifications for attachment are possible and the best option is encouraged for use based upon determination of personal application. Some~~

~~improvement suggestions for added strength are: Nut and bolt or eye bolt and nut instead of a thread tapping screw (which relies on the thread strength of the material. It is recommended use of the alternative attachments for load in excess of30 lb, or in materials (wood, fiberglass, etc) other than aluminum boat gunnel or other structure it is being screwed to). Variations on the attachment of the devise do not offer any change to the embodiments of the overall invention herein discussed and taught above.~~

Use of the device is simple and convenient. The collapsible fish cleaner should be secured to the gunwale of a ~~boate~~boat by a strap through each of the footman loops, which loops should be adjusted to achieve a convenient placement height. The device should be pulled from its collapsed position to an open position, which will resemble a V~~v~~-shaped trough. A user can then place a fish either entirely inside the unit, or with the fish's head or tail protruding through the notches described, which will aid in holding the fish during cleaning.

~~[0023] Assemble support straps through footman loops.~~

~~[0024] Assemble the Harness loop to opposite end of strap. Attach Harness loop to [00161 means of attachment to boat.~~

~~[0025] Set open and ready Stow-Away on side gunnel of boat with support flange resting on gunnel. Hold and determine correct strap length for boat application. Adjust strap at either [0024] or [0025].~~

~~[0026] Adjust strap length to allow Stow-Away to rest with end center hinge piece (part 9) approximately vertical or slanted slightly inwards at the top, towards boat.~~

~~[0027] Place fish in open cleaning trough and process.~~

~~[0028]~~ -Upon completion of all cleaning details, rinse ~~Stow-Away~~ the device and fold ends out, to achieve a closed position. ~~closing cleaner. Securing the folded~~ A user can then ~~cleaner,~~ remove the strap ~~end harness snaps from retainment hardware~~ and place cleaner in a storage area. The cleaner is ready for subsequent use ~~by (1) attachment of the harness snaps to their securement points, (2) placement of the cleaner on the support flange and (3) opening the Stow-Away cleaner, (1-2-3) for all additional uses.~~.

~~[0029]~~ Modifications in design and variations upon this can obviously be made on this present invention in light of the above teachings. These details in the above description illustrate some preferred embodiments and should not be construed as a limitation on the scope of the invention.